



IN THE UNITED STATES PATENT  
AND TRADEMARK OFFICE

Applicant(s): Malakowski, et. al. )  
Serial No.: 09/764,609 )  
Filed: January 17, 2001 )  
For: Surgery System )  
Group Art Unit: 3739 )  
Examiner: Leubecker )  
Docket No.: 29997/035A )  
Customer No.: 29471 )

Certificate of Mailing

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March 2, 2004

Registration No.

Attorney for Applicant(s)

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Declaration of Dr. Michael Nogler M.D. made under Rule 132

I, Dr. Michael Nogler declare as follows:

1. That I am a surgeon specializing in orthopaedic surgery and my Curriculum Vitae outlining my education and specializations is attached as Exhibit A.
2. That I am currently a consulting surgeon for the Stryker Corporation, a related entity to the assignee of the present application.
3. That I am familiar with the use of surgical navigation systems and instruments in the total knee arthroplasty, total hip arthroplasty and I have used a number of different surgical navigation systems in the past including passive navigation tracking systems and a system that uses wireless hand pieces of the type as claimed in the present application. As noted in my Curriculum Vitae, I have lectured on the use of image guided technology (surgical navigation) for total knee arthroplasties, total hip arthroplasties, spine surgeries.
4. That I understand that the present patent application is claiming the use of wireless communication between the surgical navigation system and the individual instruments in combination with other elements of the currently pending claims

5. That I understand that the current application has been rejected because the invention as claimed is considered obvious in view of a patent that discloses a wired or tethered instrument communicating with a surgical navigation system.

6. That I believe that the use of wireless communication between an active smart instrument and a surgical navigation system has been recognized as a significant advance today and I believe it would not have been considered as obvious on January 27, 2000 for the reasons set forth below:

a. *The use of a wireless system simplifies the setup prior to a typical total joint arthroplasty;*

b. *In total joint surgery there are a large number of instruments and devices in the surgical field that require power cords, suction tubes and the like.*

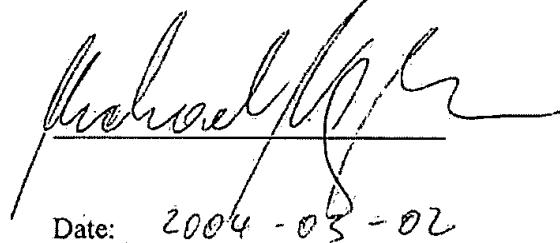
c. *The use of a wireless hand piece that can be tracked by the surgical navigation system is much less cumbersome and provides a significantly greater range of motion to me in performing these surgical techniques allowing me to perform these tasks properly, in less time, and with lower fatigue. A wired hand piece has a wire that drags, can catch on other instruments and wires, and will actually pull against the direction I need to move the hand piece.*

d. *The use of a wireless hand piece minimizes issues relating to maintenance of the surgical field in a sterile state because there is no requirement to pass a portion of the cord to a technician to attach the hand piece to the surgical navigation computer.*

Appl. No. 09/764,609  
Reply to O.A. of February 4, 2004

7. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. §1001 and that such willful false statements may jeopardize the validity of the above referenced application or any patent issued thereon.

Michael Nogler, M.D. MA, MSc.



A handwritten signature in black ink, appearing to read "Michael Nogler". It is written in a cursive style with some loops and variations in letter height.

Date: 2004 - 03 - 02

# Curriculum Vitae

Michael Gerd Maria Nögler

Geb. Datum: 14.09.1964

ao. Univ.- Prof. (Associate Professor for Orthopaedic Surgery)

Medical Doctor

Master of Arts (political science)

Master of Advanced Studies (Hospital management)

Master of Science (Public Health)

## Ausbildung

07. July 1988 Received MA degree in political science. Thesis: The foreign policy of the Peoples republic of China and the third world.  
*Univ.- Prof. Dr. Zdenek Mlynar*

WS 1988 - „Teaching and Research Assistant“ at the University of New Orleans, Department of Political Science  
- Coworker at the project: Foreign Policy of the Peoples Republic of China, bei *Prof. Larry Katzenstein*

1989 Grand from the Goverment of Thailandat the Chulalongkorn University in Bangkok: Impact of an export-orientate economic policy on the development of a domestic market.

Nov. 1995 MD degree

Feb. 2000 research project at the „Maurice E. Müller Institut für Biomechanik“, Bern, Switzerlan: Initial stability of the ABG stem. ROBODOC vs. Manual implantation, *Prof. Lutz Nolte*

Nov. 2001 Promotion to Associate Professor of Orthopaedic surgery

April 2002 MAS degree

April 2002 MSc degree

## **Professional**

### **Medical training**

1996 Start training at the Dpt. of Orthopaedic Surgery, University of Innsbruck. Member of the CAOS Research Group  
since 1996 Responsible for Hospital information systems at the office of the medical director of the hospital. Member of the data security board.  
since 1997 Head of the CAOS Research Group  
since 2000 Member of the IT commission of the Medical University of Innsbruck  
Nov 2002 Board certification

### **Teaching**

1988 Teaching assistant at the University of New Orleans, College 4. year  
1989 - 1992 Dpt. of political science, University of Innsbruck: „Introduction to Information Technology“  
since 1997 Univ.- Klinik für Orthopädie: „Bedside Teaching“  
since 1999 Univ.- Klinik für Orthopädie: „CAOS and Robotics“  
2001 Robot – assisted hip revision in Osaka and Sapporo, Japan  
since 2003 MIS-Hip arthroplasty

### **Areas of research**

- Computer assisted Orthopaedic surgery (CAOS) – Total Joint Arthroplasty
- Workplace security
- Minimally invasive hip arthroplasty

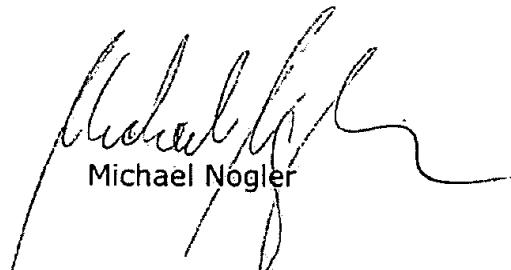
## **Prices**

1996      Posterprice „Österreichischen Gesellschaft für Hämatologie und Onkologie“  
2001      Spine Society of Europe, Basic Science Award

## **Member of professional societies**

- Austrian Association of Orthopaedic Surgeon
- CAOS International

Innsbruck, 02.03.04



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To. Bill Frank

12 pages

from Jürgen Wagner

**Received**

MAR 17 2004

## List of publications

McCracken And Frank

### 1. Original papers

1. Öfner, D.; Maier, H.; Riedmann, B.; Holzberger, P.; Nogler, M.; Tötsch, M.; Bánkfalvi, A.; Winde, G.; and Schmid, K.: Immunhistochemical detectable p53 and mdm-2 oncoprotein expression in colorectal adenocarcinoma - clinicopathology study of 109 consecutive cases demonstrating lack of long-term prognostic significance. *J. Clin Pathol Mol Pathol*, 48: M12-M16, 1995
2. Baubin, M.; Schirmer, M.; Nogler, M.; Semenitz, B.; Falk, M.; Kroesen, G.; Hortnagl, H.; and Gilly, H.: Rescuer's work capacity and duration of cardiopulmonary resuscitation. *Resuscitation*, 33(2): 135-9, 1996
3. Baubin, M.; Nogler, M.; Semenitz, B.; Falk, M.; Kroesen, G.; Hortnagl, H.; and Gilly, H.: Active compression-decompression cardiopulmonary resuscitation in standing position over the patient: pros and cons of a new method. *Resuscitation*, 34(1): 7-10, 1997
4. Wimmer, C.; Nogler, M.; and Frischhut, B.: Influence of antibiotics on infection in spinal surgery: a prospective study of 110 patients. *J Spinal Disord*, 11(6): 498-500, 1998
5. Nogler, M.; Wimmer, C.; Mayr, E.; and Öfner, D.: The efficacy of using search engines in procuring information about orthopaedic foot and ankle problems from the World Wide Web. *Foot Ankle Int*, 20(5): 322-5, 1999
6. Bach, C. M.; Nogler, M.; Wimmer, C.; Stoeckel, B.; and Ogon, M.: Fistula between a total hip arthroplasty and the rectum: a case report. *Clin Orthop*, 388: 143-6, 2001

7. **Bach, C. M.; Steingruber, I. E.; Peer, S.; Nogler, M.; Wimmer, C.; and Ogon, M.:** Radiographic assessment in total knee arthroplasty. *Clin Orthop*, (385): 144-50, 2001
8. **Nogler, M.; Krismer, M.; Haid, C.; Ogon, M.; Bach, C.; and Wimmer, C.:** Excessive heat generation during cutting of cement in the Robodoc hip-revision procedure. *Acta Orthop Scand*, 72(6): 595-9, 2001
9. **Nogler, M.; Krismer, M.; Waldenberger, P.; Rachbauer, F.; and Bach, C.:** Multiple previous surgeries, infection, and preoperative radiation: A cause for arterial rupture in closed reduction? *J Arthroplasty*, 16(8): 1075-1077, 2001
10. **Nogler, M.; Lass-Florl, C.; Ogon, M.; Mayr, E.; Bach, C.; and Wimmer, C.:** Environmental and body contamination through aerosols produced by high-speed cutters in lumbar spine surgery. *Spine*, 26(19): 2156-9, 2001
11. **Nogler, M.; Lass-Florl, C.; Wimmer, C.; Bach, C.; Kaufmann, C.; and Ogon, M.:** Aerosols produced by high-speed cutters in cervical spine surgery: extent of environmental contamination. *Eur Spine J*, 10(4): 274-7, 2001 EUROSPINE Basic Science Award!
12. **Nogler, M.; Maurer, H.; Wimmer, C.; Gegenhuber, C.; Bach, C.; and Krismer, M.:** Knee pain caused by a fiducial marker in the medial femoral condyle: a clinical and anatomic study of 20 cases. *Acta Orthop Scand*, 72(5): 477-80, 2001
13. **Nogler, M.; Wimmer, C.; Lass-Florl, C.; Mayr, E.; Trobos, S.; and Gegenhuber, C.:** Contamination risk of the surgical team through ROBODOC's high-speed cutter. *Clin Orthop*, (387): 225-31, 2001
14. **Nogler, M.; Wimmer, C.; Mayr, E.; and Ofner, D.:** Orthopaedic information on the Internet. *J Bone Joint Surg Am*, 83-A(6): 951-2, 2001
15. **Steingruber, I. E.; Bach, C. M.; Wimmer, C.; Nogler, M.; and Buchberger, W.:** Multisegmental pneumatoctysts of the lumbar spine mimic osteolytic lesions. *Eur Radiol*, 11(5): 845-8, 2001
16. **Wimmer, C.; Gluch, H.; Nogler, M.; and Walchnik, N.:** Treatment of idiopathic scoliosis with CD-Instrumentation: lumbar pedicle screws versus laminar hooks in 66 patients. *Acta Orthop Scand*, 72(6): 615-20, 2001
17. **Bach, C. M.; Nogler, M.; Steingruber, I. E.; Ogon, M.; Wimmer, C.; Gobel, G.; and Krismer, M.:** Scoring systems in total knee arthroplasty. *Clin Orthop*, (399): 184-96, 2002

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26. Mayr, E.; Kessler, O.; Prassi, A.; Rachbauer, F.; Krismer, M.; and Nogler, M.: Variance of pelvic position in supine and standing position. *Clin Orthop*, 2003 Accepted with minor revisions!
27. Mayr, E.; Lass-Flörl, C.; Rachbauer, F.; Walochnik, N.; Bach, C.; and Nogler, M.: Extension of an aerosol cloud produced by an ultrasound cement removal system. *Hip International*, 2003
28. Nogler, M.; Lass-Flörl, C.; Wimmer, C.; Mayr, E.; Bach, C.; and Ogon, M.: Contamination during removal of cement in revision hip

arthroplasty. A cadaver study using ultrasound and high-speed cutters. *J Bone Joint Surg Br*, 85(3): 436-9, 2003

29. **Nogler, M.; Polikeit, A.; Wimmer, C.; Brückner, A.; Ferguson, S.; and Krismer, M.**: Primary stability of a ROBODOC ® implanted anatomical stem versus manual Implantation. *Clin Biomechanic*, 2003 in print!

30. **Prassl, A.; Krismer, M.; Mayr, E.; Kessler, O.; Rachbauer, F.; and Nogler, M.**: Malformations of the acetabular fossa as a cause of intrapelvic injury in total hip arthroplasty - a report of two cases. *J Arthroplasty*, 2003 Accepted with minor revisions!

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32. **Mayr, E.; Moctezuma, J.; and Nogler, M.**: Validity of the Determination of the Acetabular Orientation with a 3D Digitizer. *J Arthroplasty*, 2004 writting!

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35. **Nogler, M.; Mayr, E.; Prassl, A.; Rachbauer, F.; and Krismer, M.**: Navigated versus non-navigated minimalinvasive THA through the direct anterior single incision approach. *Clin Orthop*, 2004 in preparation!

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37. **Rachbauer, F.; Nogler, M.; and Krismer, M.**: A prospective randomized trial MIS-THA through a single incision direct anterior approach versus the anterolateral transgluteal approach - early outcome. *J Arthroplasty*, 2004 in progress!

38. **Rachbauer, F.; Nogler, M.; and Krismer, M.**: The single incision direct anterior approach to the hip. *J Arthroplasty*, 2004 submitted!

39. **Stoeckl, B.; Kessler, O.; Krismer, M.; Mangat, J.; Moctezuma, J.; and Nogler, M.**: Variation of entry point selection for the transepicondylar axis and it's quantitative effects. *J Arthroplasty*, 2004 submitted!

## **2. Abstracts**

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1. Öfner D, Schnetzer A, **Nogler M**, Weiss H, Maier H, Tötsch M, Mikuz G, Schmid KW (1996): Standardized AgNOR in Ki-67 negative and positive benign and malignant cells. *European Journal of Histochemistry* 40
2. Riedmann B, Maier H, Weiss H, Spechtenhauser B, Schwab G, Tötsch M, **Nogler M**, Schmid KW, Öfner D (1996) Silver stained nucleolar organizer regions associated protein analysis: a major prognostic factor in gastric carcinoma. *Gastroenterologie*
3. **Nogler M**, Andreas A, Weiss H, Maier H, Tötsch M, Mikuz G, Schmid KW, Öfner D (1996): AgNOR analysis in Ki-67 negative and positive Benign and malignant cells. Fourth International Workshop on Applications of AgNOR in Pathology, Taormina
4. **Nogler M** (1997): The problems of cutting through the major trochanter in the ROBODOC ® procedure. Robodoc Usermeeting, Vienna
5. Wimmer C, Krismer M, Gluch H, **Nogler M**, Walochnik N (1998): Treatment of idiopathic scoliosis with CD-instrumentation. Lumbar pedicle screws versus laminar hooks. in JBJS Supplement 80-B, Eurospine, Innsbruck
6. **Nogler M**, Wimmer C, Mayr E (1998): Die Verfügbarkeit von Informationen über Gelenkendoprothetik im world wide web. in Z. Orthop 136, Deutscher Orthopädenkongreß, Wiesbaden
7. Franzreb M, Wimmer C, **Nogler M** (1998): Widersprüchliche Ergebnisse nach Cerclage Fibreaux bei Hallux valgus . in Z. Orthop 136, Deutscher Orthopädenkongreß, Wiesbaden
8. Wimmer C, **Nogler M**, Mayr E, Franzreb M (1998): The chevron

osteotomy with lateral soft-tissue release for the treatment of the hallux valgus deformity. Foot The Congress, Köln

9. **Nogler M**, Wimmer C, Mayr E, Stöckl B, Franzreb M (1998): Is the world wide web useful to retrieve information relevant in foot and ankle orthopedics? Foot The Congress, Köln
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11. Wimmer C, Maurer H, **Nogler M**, Hald C (1998): Anatomische Betrachtungen zur perkutanen interkorporellen Fusion an der Lendenwirbelsäule. Jahrestagung der Griechisch-Österreichischen Gesellschaft für Orthopädie, Athen
12. Ogon M, **Nogler M** (1998): Die externe Kommunikation der Univ. Klinik für Orthopädie. Eine Befragung von 400 niedergelassenen Ärzten. Symposium: Der Patient in der Informationsgesellschaft, Innsbruck
13. **Nogler M**, Ogon M, Fleisch G, Wimmer C (1998): Kosten Nutzen und rechtliche Aspekte des Einsatzes neuer Kommunikationsmedien zur Arztbriefübermittlung am Beispiel der Univ. Klinik für Orthopädie Innsbruck. Symposium: Der Patient in der Informationsgesellschaft, Innsbruck
14. Bach C, Wimmer C, **Nogler M**, Frischhut B, Krismer M (1999): Behandlungsstrategien bei Hüfttotalendoprothesen mit Pfannenlagerdestruktion. Ortho Mitteilungen 2:9. Jahrestagung der Österreichischen Gesellschaft für Orthopädie und Orthopädische Chirurgie, Gmunden
15. Bach C, Wimmer C, **Nogler M**, Frischhut B, Krismer M (1999): Infiziertes pseudoaneurysma durch eine intrapelvin dislozierte Pfanne nach Hüfttotalendoprothesenversorgung. Ortho Mitteilungen 2:9. Jahrestagung der Österreichischen Gesellschaft für Orthopädie und Orthopädische Chirurgie, Gmunden
16. Ogon M, Hartig F, **Nogler M**, Bach C, Steingruber I (1999): Bringt der Patellaersatz im Langzeitverlauf Vorteile? Ortho Mitteilungen 2:9. Jahrestagung der Österreichischen Gesellschaft für Orthopädie und Orthopädische Chirurgie, Gmunden
17. Wimmer C, Gegenhuber C, Bach C, **Nogler M** (1999): Die Fusionsrate der Posterolateralen Spondylodese nach Wiltse. Ortho Mitteilungen 2:9. Jahrestagung der Österreichischen Gesellschaft für Orthopädie und Orthopädische Chirurgie, Gmunden
18. **Nogler M**, Wimmer C, Lass-Flörl C, Mayr E, Stöckl B (1999): Detection of the aerosol cloud produced by ROBODOC'S ® high-

speed bone burr. A contamination risk for the surgical team. in JBJS 81-B Supplement, EFORT Brüssel

19. Stöckl B, Wimmer C, Krismer M, Landauer F, **Nogler M** (1999): Two year migration results of the Duraloc cup. in JBJS 81-B Supplement, EFORT Brüssel
20. Stöckl B, **Nogler M**, Krismer M, Biedermann R, Wimmer C (1999): Lumbar pedicle screws versus laminar hooks in the treatment of idiopathic scoliosis with CD-instrumentation. in JBJS 81-B Supplement, EFORT Brüssel
21. Bach C, Wimmer C, Freund M, Steingruber I, **Nogler M** (1999): Two degenerative pneumocysts of the lumbar spine in one patient. A case Report. JBJS 81-B Supplement, EFORT Brüssel
22. **Nogler M**, Wimmer C, Mayr E, Landauer F, Stöckl B (1999): Chevron osteotomy with lateral soft tissue release for the treatment of hallux valgus deformity. in JBJS 81-B Supplement, EFORT Brüssel
23. **Nogler M**, Wimmer C, Lass-Flörl C, Mayr E, Bach C, Krismer M (1999): Is there a contamination risk for the surgical team through ROBODOC'S high-speed bone cutter? 4Th CAOS Symposium, Davos
24. Ogon M, Riedl-Huter C, **Nogler M**, Krismer M, Spratt KF, Wimmer C (1999): The value of spine radiographs in predicting low back pain under high performance training. 59. Jahrestagung der Schweizerischen Gesellschaft für Orthopädie,
25. Bach C, **Nogler M**, Wimmer C, Frischhut M, Krismer M (1999): Treatment of severe total hip arthroplasty loosening. HIP 99-Hip surgery developments and future prospects, Toulouse
26. Bach C, Wimmer C, **Nogler M**, Steingruber I (1999): Hematuria secondary to transpelvic dislocation of total hip arthroplasty - a case report. HIP 99-Hip surgery developments and future prospects, Toulouse
27. Wimmer C, Stöckl B, **Nogler M**, Bach CM (2000): Conservative treatment of tuberculous spondylitis. Euro Spine J 9:360-1
28. **Nogler M**, Krismer M, Waldenberger P, Rachbauer F, Bach C, Ogon M (2000): Rupture of the arteria profunda femoris during cloes reduction in a dislocated hip-arthroplasty. in JBJS B Supplement, 4th Domestic Meeting, European Hip Society, Bristol, UK
29. **Nogler M**, Wimmer C, Lass-Flörl C, Mayr E, Stöckl B, Krismer M (2000): Detection of the aerosol cloud produced by ROBODOC'S high speed bone burr: A contamination risk for the surgical team. in JBJS B Supplement, 4th Domestic Meeting, European Hip Society, Bristol, UK

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32. Krismer M, **Nogler M**, Kaufmann C, Ogon M (2000): Revision of femoral cement removal by robot vs. Manual procedure. In JBJS B Supplement, 4th Domestic Meeting, European Hip Society, Bristol, UK
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34. Bach C, **Nogler M**, Winter P, Wimmer C, Fischer M, Krismer M (2000): Gluteal function after ROBODOC Total hip arthroplasty. In JBJS B Supplement, 4th Domestic Meeting, European Hip Society, Bristol, UK
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38. **Nogler M**, Krismer M, Wimmer C, Ogon M, Khalifa K, Shimbles S (2000): Temperature measurement during the cutting of cement in the ROBODOC ® hip revision procedure. 5th International Symposium on CAOS, Davos
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